

## Fire Alarm System GSM based using Arduino

Abstract- Fire outage is one of the phenomena that still pose a serious challenge to the security of lives and properties. Fire, being an important process that affects ecological systems across the globe has both positive and negative effects. It has been used by humans for cooking, generating heat, signalling and propulsion purposes.

However soil erosion, atmospheric pollution and hazard to life and property are majorly the negative effects. Although the use of wildland fire, controlled burns, and provision of fire fighting services is put in place to prevent the outbreak, it is only evident in most developed countries. Fire accident creates serious health and safety hazard in developing countries, which also resulted into catastrophic situation.

Associated with it is unnecessary injury or complete loss of lives in one hand, partial or complete damage to expensive and valuable properties on the other hand. This huge loss is inestimably enormous; hence this paper proposes the development of a GSM -based fire detector system. A cost

effective system that detects fire or smoke and sends alert information to a mobile phone for quick and immediate action thereby, avoiding unnecessary and costly industrial and domestic breakdown.

Keywords: Fire detector, Smoke detector, Wireless sensor, Mobile phone, UART translator.